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	First Named Inventor	Otero, Hernan G.	
	Art Unit	3628	
	Examiner Name	Ojo O. Oyebisi	
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Patent

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellants: OTERO et al.

Application Serial No.: 09/823,125

Filing Date: March 30, 2001

For: APPARATUS, METHODS AND  
ARTICLES OF MANUFACTURE  
FOR CONSTRUCTING AND  
EXECUTING TRANSACTION  
PROCESSES AND PROGRAMS

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)  
) Group Art Unit: 3692

)  
) Examiner: Ojo O. Oyebisi

)  
) **APPEAL BRIEF**

)  
) Attorney Docket No.: G08.051

)  
) **PTO Customer Number 28062**  
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Dated: April 11, 2007

By: 

Edith Martin

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner in the Final Office Action mailed October 20, 2006 (the "Final Office Action"), rejecting claims 1-6 and 8-14.

## **REAL PARTY IN INTEREST**

The present application is assigned to GOLDMAN SACHS & CO., One New York Plaza, New York, New York 10004, U.S.A.

## **RELATED APPEALS AND INTERFERENCES**

No other appeals or interferences are known to Appellants, Appellants' legal representative, or assignee, which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

## **STATUS OF CLAIMS**

Claims 1-6 and 8-14 are pending in this application. All pending claims stand rejected and are now being appealed.

Claim 7 has previously been canceled.

## **STATUS OF AMENDMENTS**

No amendments were filed after the Final Office Action.

## **SUMMARY OF CLAIMED SUBJECT MATTER**

According to conventional practices, computer implementation of trading strategies requires custom computer programming. This approach is expensive and time-consuming. (Specification, page 1, line 19 to page 2, line 20)

According to the present invention, plug-ins that each embody a respective trading algorithm are selectively used to configure a logic engine. (FIG. 1, engine 10; specification, page 4, lines 5-22 and page 5, lines 13-16) As configured by the trading algorithm plug-in, the engine executes orders to perform the trading algorithm. (Specification, page 4, lines 5-22) Without a need for utilizing programming services, but rather by use of a graphical user interface

(GUI) tool, the user may enter parameters for the trading algorithm, and may also use the GUI to monitor execution of a resulting trading order in real time. (Specification, page 7, lines 13-23; and page 8, lines 19-23)

\* \* \* \* \*

Appellants will now map the limitations of the pending independent claims to the disclosure of this application.

\* \* \* \* \*

#### Claim 1

“A method for computerized trading”—specification, page 1, lines 14-15.

“A human being using a graphical user interface to enter parameters for a trading algorithm to input a trading order into a logic engine”—specification, page 7, lines 19-22; and page 8, lines 19-20.

“Using a first plug-in in said logic engine for implementing the trading algorithm”—specification, page 6, lines 4-8 and 15-16.

“Inputting data for said order into said logic engine”—specification, page 6, lines 4-14.

“Processing the order with said logic engine, using said plug-in”—specification, page 6, lines 4-16.

“Executing said order”—specification, page 6, lines 4-11.

“Said human being monitoring said order in real time by using said graphical user interface”—specification, page 7, lines 1-3; and page 8, lines 19-20.

#### Claim 6

“A method for computerized trading”—specification, page 1, lines 14-15.

“A human being using a graphical user interface to enter parameters for a trading algorithm to input a ComplexOrder into a logic engine through an ordering system”—specification, page 7, lines 19-22; and page 8, lines 19-20, and page 14, lines 12-15, and page 15, lines 3-10.

“Using a first plug-in in said logic engine for implementing the trading algorithm”—specification, page 6, lines 4-8 and 15-16.

“Inputting data for said order into said logic engine”—specification, page 6, lines 4-14.

“Processing the order with said logic engine, using said plug-in through deconstructing said ComplexOrder into Events and Actions”—specification, page 6, lines 4-16, and page 15, lines 8-20.

“Executing said order through outputting said order through an ordering system”—specification, page 6, lines 4-11, and page 14, lines 12-15.

“Said human being monitoring said order in real time by using said graphical user interface”—specification, page 7, lines 1-3; and page 8, lines 19-20.

#### Claim 8

“An apparatus for computerized trading”—specification, page 1, lines 14-15.

“A logic engine for processing trading orders”—logic engine 10, FIG. 1; specification, page 5, lines 13-20.

“An interface to said logic engine to receive from a human being parameters for a trading algorithm and to allow the human being to monitor orders in real time”—specification, page 8, lines 19-20, and page 7, lines 1-3 and 21-22.

“A first plug-in in said logic engine for implementing the trading algorithm”—specification, page 7, lines 13-21.

“Whereby said logic engine processes orders received via said interface”—specification, page 6, lines 4-14.

“Wherein said logic engine, said interface and said first plug-in are software recorded on a computer-readable medium and capable of execution by a computer”—specification, page 4, lines 5-10.

#### Claim 9

“An apparatus for computerized trading”—specification, page 1, lines 14-15.

“A logic engine for processing trading orders”—logic engine 10, FIG. 1; specification, page 5, lines 13-20.

“A first interface to said logic engine for processing orders to receive from a human being parameters for a trading algorithm and to allow the human being to monitor orders in real time”—specification, page 8, lines 19-20, and page 7, lines 1-3 and 21-22.

“A second interface to said logic engine for processing orders”--specification, page 14, lines 12-18.

“A first plug-in in said logic engine for implementing the trading algorithm”—specification, page 7, lines 13-21.

“Whereby said logic engine processes orders received via either of said first and second interfaces”--specification, page 6, lines 4-14, and page 14, lines 12-18.

“Wherein said logic engine, said first interface, said second interface and said first plug-in are software recorded on a computer-readable medium and capable of execution by a computer”--specification, page 4, lines 5-10.

## **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-3, 5 and 8-14 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kane (U.S. Patent No. 6,317,728).<sup>1</sup>

## **ARGUMENT**

### ***I.     Applicable Law***

The sole issue in this appeal is related to a rejection, formulated under 35 U.S.C. § 102(e), in which the Examiner contends that the claimed invention is anticipated by the Kane reference. The law governing anticipation is set forth as follows in *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed.Cir. 1987), as quoted in MPEP § 2131:

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<sup>1</sup> The Examiner also stated a rejection under § 103(a) of claims 4 and 6. Claim 4 is indirectly dependent on claim 1. Claim 6 is an independent claim but is not separately argued herein. Appellants argue all pending claims as a group with claim 1 taken as exemplary of the claims. The rejection of claims 4 and 6 relies on a combination of Kane with an entry in the Microsoft Computer Dictionary (MCD). The MCD entry does not appear to raise any issue with respect to the patentability of claim 1, and it is believed that if appellants' argument in regard to claim 1 prevails, then patentability of claims 4, 6 and the other pending claims will be established. Since the MCD entry is not pertinent to the argument made below in regard to claim 1, the MCD entry will not be further discussed herein.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.”<sup>2</sup>

As appellants will demonstrate, the Kane reference fails to satisfy the “all elements” rule, and the Examiner’s anticipation rejection does not properly deal with the claimed invention in “complete detail”.

## **II. Detailed discussion of the novelty of claim 1 (argument applicable to all pending claims – 1-6 and 8-14)**

Claim 1 is taken as representative of all of the claims now presented in the application. Thus appellants propose that the novelty of claim 1 also establishes novelty as to all of the pending claims.

### **A. Particularly pertinent features of claim 1**

According to the invention as recited in claim 1, a plug-in is used in a logic engine to implement a trading algorithm. A human being uses a graphical user interface (GUI) to enter parameters for the trading algorithm implemented by the plug-in. The same human being uses the same GUI to monitor in real time a trading order input into the logic engine by the trading algorithm.

### **B. Overview of the Kane reference**

The Kane reference is primarily concerned with computer software that automatically engages in trading of securities and/or commodities.<sup>3</sup> The heart of Kane’s software system is

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<sup>2</sup> *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed.Cir. 1989) [also quoted in MPEP § 2131; emphasis in quotation has been added].

<sup>3</sup> See Kane, column 1, lines 4-9; column 10, lines 15-17.

made up of numerous “intelligent agents”.<sup>4</sup> The intelligent agents are modules or sections of computer logic and embody rules for buying or selling securities.<sup>5</sup> The intelligent agents “vote” as to whether to buy or sell particular securities; the system tallies the votes of the agents in a weighted manner to determine whether to place a particular buy or sell order.<sup>6</sup>

The main intended mode of operation of Kane’s trading system is without human intervention.<sup>7</sup> However, Kane’s system also allows users to monitor the activities of the automated trading system, to override the system’s trading orders, and to manually enter trading orders.<sup>8</sup> FIGS. 18 and 19 in Kane show user interface screen displays. These screen displays provide information to the user about trading activity automatically undertaken by the system.<sup>9</sup> The screen display of FIG. 19 also allows the user to initiate manual trades.<sup>10</sup>

Kane contains no disclosure as to how the intelligent agents are generated. The reference also does not disclose entry of parameters for the intelligent agents.

### C. Fatal flaw in the Examiner’s reading of claim 1 on the Kane reference

There is a simple but fatal flaw in the Examiner’s rejection of claim 1. The Examiner relies on Kane’s “intelligent agents” as satisfying the claimed “first plug-in ... for implementing the trading algorithm”<sup>11</sup>, and also cites a passage at column 8, lines 20-36 of Kane as allegedly teaching that a human being enters parameters for the trading algorithm. The flaw is that this passage does not support the Examiner’s reliance thereon.

Appellants believe that the key portion of this passage is at column 8, lines 28-31, and now quote that passage in full:

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<sup>4</sup> Kane, column 5, lines 37-42; column 7, lines 9-16.

<sup>5</sup> Kane, column 5, lines 5-10.

<sup>6</sup> Kane, column 5, lines 42-55; column 7, lines 8-41.

<sup>7</sup> Kane, column 11, lines 45-51.

<sup>8</sup> Kane, column 8, lines 19-31; column 14, lines 43-47.

<sup>9</sup> Kane, column 14, lines 37-47.

<sup>10</sup> Kane, column 14, lines 43-47.

<sup>11</sup> See Final Office Action, page 2, 3d and 4<sup>th</sup> lines from the bottom of the page.



Wealth Builder also allows customer override and entry of trading commands, and provides a single screen for quote and position information.

This passage has nothing to do with Kane's intelligent agents or entering parameters for the same. Rather, this passage teaches a human being overriding the automated operation of the system, not entering parameters for an algorithm implemented by the intelligent agents that the Examiner considers to be "plug-ins". Thus the passage does not support the Examiner's assertion that Kane teaches a human being entering parameters for a trading algorithm.

The Examiner may previously have been on somewhat firmer ground when, at page 6 of the Office Action dated Nov. 17, 2005, he proposed that the human being entering parameters for the trading algorithm was satisfied by the pre-programming of the buy and sell rules embodied by Kane's intelligent agents.<sup>12</sup> However, in response to the Examiner's position on this point, appellants amended the claims to specify that the human being who entered the algorithm parameters was the same user who monitors an order executed by the system. The Examiner then fell back to his erroneous reliance on Kane's provision of a manual override capability. As appellants note above, this constitutes overriding operation of the intelligent agents, not entering parameters for an algorithm that the intelligent agents implement.

Appellants have reviewed the Kane reference, and have not found any other passage in Kane that makes up for this deficiency in the passage just quoted. As a result, a proper reading of the Kane reference leads to the conclusion that the reference fails the "all elements" rule for anticipation under § 102 in that Kane fails to teach the claim limitation of a human being entering parameters for a trading algorithm, and also using the same interface to monitor an order executed by the system.

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<sup>12</sup> The pre-programming is not explicitly described in Kane, but appellants recognize that the software to implement Kane's intelligent agents presumably must have a human author.

## CONCLUSION

The rejection of the independent claims herein is improper at least because all of those claims recite at least one limitation not disclosed in the Limprecht reference. The Examiner's decision should therefore be reversed.

As required by 37 CFR §41.37(a)(1), this Brief is filed within two months from the date of mailing of Appellants' Notice of Appeal (*i.e.*, within two months of February 14, 2007); as such, no extension of time is believed due. However, if any additional fees are due in conjunction with this matter, the Commissioner is hereby authorized to charge them to Deposit Account 50-1852. An Appendix of claims involved in this appeal is attached hereto.

If any issues remain, or if the Examiner or the Board has any further suggestions for expediting allowance of the present application, kindly contact the undersigned using the information provided below.

Respectfully submitted,



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April 11, 2007  
Date

## APPENDIX A--CLAIMS

1. A method for computerized trading comprising:
  - a human being using a graphical user interface to enter parameters for a trading algorithm to input a trading order into a logic engine;
  - using a first plug-in in said logic engine for implementing the trading algorithm;
  - inputting data for said order into said logic engine;
  - processing the order with said logic engine, using said plug-in;
  - executing said order; and
  - said human being monitoring said order in real time by using said graphical user interface.
2. A method as in claim 1, wherein the step of inputting a trading order into a logic engine further comprises inputting an order through an ordering system.
3. A method as in claim 2, wherein the step of inputting an order through an ordering system further comprises inputting a ComplexOrder through an ordering system.
4. A method as in claim 3, wherein the step of processing the order with said logic engine, using said plug-in, further comprises deconstructing said ComplexOrder into at least one Event and Action.
5. A method as in claim 1, wherein the step of executing said order further comprises outputting said order through an ordering system.

6. A method for computerized trading comprising:

- a human being using a graphical user interface to enter parameters for a trading algorithm to input a ComplexOrder into a logic engine through an ordering system;
- using a first plug-in in said logic engine for implementing the trading algorithm;
- inputting data for said order into said logic engine;
- processing the order with said logic engine, using said plug-in through deconstructing said ComplexOrder into Events and Actions;
- executing said order through outputting said order through an ordering system; and
- said human being monitoring said order in real time by using said graphical user interface.

7. (canceled)

8. An apparatus for computerized trading comprising:

- a logic engine for processing trading orders;
  - an interface to said logic engine to receive from a human being parameters for a trading algorithm and to allow the human being to monitor orders in real time;
  - a first plug-in in said logic engine for implementing the trading algorithm;
- whereby said logic engine processes orders received via said interface;
- wherein said logic engine, said interface and said first plug-in are software recorded on a computer-readable medium and capable of execution by a computer.

9. An apparatus for computerized trading comprising:

- a logic engine for processing trading orders;

- a first interface to said logic engine for processing orders to receive from a human being parameters for a trading algorithm and to allow the human being to monitor orders in real time;
- a second interface to said logic engine for processing orders;
- a first plug-in in said logic engine for implementing the trading algorithm.

whereby said logic engine processes orders received via either of said first and second interfaces;

wherein said logic engine, said first interface, said second interface and said first plug-in are software recorded on a computer-readable medium and capable of execution by a computer.

10. An apparatus as in claim 9, wherein said first interface further comprises an Input driver.

11. An apparatus as in claim 9, wherein said second interface further comprises an Exchange driver.

12. An apparatus as in claim 9 wherein said first interface further comprises an interface to an ordering system.

13. An apparatus as in claim 9 wherein said second interface further comprises an interface to an ordering system.

14. An apparatus as in claim 9 wherein said logic engine further comprises a Core Processing Area.

## APPENDIX B - EVIDENCE

No evidence is being submitted with this Appeal Brief (*i.e.*, this appendix is empty).



## APPENDIX C - RELATED PROCEEDINGS

No prior or pending appeals, interferences, or judicial proceedings are known to Applicants, Applicants' legal representative, or assignee, which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal. Therefore, there are no copies of decisions rendered by a court or the Board to attach (*i.e.*, this appendix is empty).